
REMARKS

Claims 9 and 10 are canceled; and as a result, claims 4-6, 14-16, and 29-37 are now pending in the above-identified patent application.

§102 Rejections of the Claims

Claims 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Chern *et al.* (U.S. Patent No. 6,448,628). Applicant respectfully traverses the rejections of claims 14 and 15.

Chern *et al.* is not a valid 102(e) reference. A necessary condition for a valid 102(e) reference is that the reference be filed before applicant's date of invention. Applicant's constructive date of invention is December 14, 1999. The Chern *et al.* filing date is January 27, 2000. Thus, because the Chern *et al.* filing date is after applicant's constructive invention date, Chern *et al.* is not a valid 102(e) reference. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 14 and 15.

§103 Rejections of the Claims**Claims 4-6, 9, 10, and 14-16**

Claims 4-6, 9, 10, and 14-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tanizaki *et al.* (U.S. Patent No. 6,384,674) in view of Manning *et al.* (U.S. Patent No. 5,962,887). Applicant does not admit that either Tanizaki *et al.* or Manning *et al.* is prior art and reserves the right to "swear behind" Tanizaki *et al.* and Manning *et al.* as provided for under 37 C.F.R. 1.131. Claims 9 and 10 are canceled, so the rejections are moot. Applicant respectfully traverses the rejection of claims 4-6 and 14-16.

Claim 4, recites, "a gate oxide layer having a thickness of between about 20 angstroms and about 40 angstroms." In contrast, neither Tanizaki *et al.* nor Manning *et*

al. teach or suggest "a gate oxide layer having a thickness of between 20 about angstroms and about 40 angstroms." The office action states that the oxide thickness is "seen as an obvious matter of preference." Applicant respectfully disagrees. The specification at page 6, line 10 states, "A thickness of less than about 20 angstroms may result in manufacturing devices that have low yields, while a thickness of more than about 40 angstroms may result in a device frequency response that is lower than desired." This statement demonstrates the criticality of the range of oxide thicknesses selected. Further, none of the cited art teaches or suggests the impact of having an oxide thickness of less than about 20 angstroms (low yield) and the design impact of having an oxide thickness of more than about 40 angstroms (lower frequency than desired). The Office action, on page 4, cites cases that state that criticality is not limited to unexpected results. Thus, selection of a range of thicknesses for the oxide layer, exhibiting criticality for the reasons provided above, is not an obvious design choice. Hence, the Office action fails (by failing to provide references that teach or suggest each of the elements) to state a *prima facie* case of obviousness with respect to claim 4. Therefore, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 4.

Claims 5 and 6 are dependent on claim 4. For reasons analogous to those stated above and elements in the claims, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claims 5 and 6. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 5 and 6.

Claims 14-16

The Office action must provide specific, objective evidence of record for a finding of a teaching, suggestion, or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). The Office action does not meet this requirement because the Office action fails to address this requirement with respect to

claim 14. Thus, by failing to meet the standard of *In re Sang Su Lee*, the Office action fails to state a *prima facie* case of obviousness with respect to claim 14. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 14.

Claims 15 and 16 are dependent on claim 14. For reasons analogous to those stated above and the elements in the claims, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claims 15 and 16. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 15 and 16.

Claim 29

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanizaki *et al.* (U.S. Patent No. 6,384,674) in view of Manning *et al.* (U.S. Patent No. 5,962,887) and Yoneda *et al.* (U.S. Patent No. 4,906,594). Applicant does not admit that either Tanizaki *et al.* or Manning *et al.* is prior art and reserves the right to "swear behind" Tanizaki *et al.* and Manning *et al.* as provided for under 37 C.F.R. 1.131. Applicant respectfully traverses the rejection of claim 29.

Claim 29 recites, "a gate oxide layer having a thickness of between 20 angstroms and about 40 angstroms." For reasons analogous to those state above with respect to claim 4, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claim 29. Therefore, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 29.

Assuming *arguendo* that the Office action teaches or suggests "a gate oxide layer having a thickness of between about 29 angstroms and about 40 angstroms.," The Office action still fails to meet the standard of *In re Sang Su Lee*. The Office action must provide specific, objective evidence of record for a finding of a teaching, suggestion, or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338 (Fed.

Cir. 2002). The Office action does not meet this requirement because the Office action fails to address the question of a teaching, suggestion, or motivation to combine a SOS enhanced capacitor of Manning *et al.* and Yoneda *et al.* with the circuit shown in Fig. 2 of Tanizaki *et al.* Applicant respectfully submits that there is no such teaching. Thus, by failing to meet the standard of *In re Sang Su Lee*, the Office action fails to state a *prima facie* case of obviousness with respect to claim 29. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 29.

Claims 30 and 31

Claim 30 and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Tanizaki *et al.* (U.S. Patent No. 6,384,674) in view of Manning *et al.* (U.S. Patent No. 5,962,887) and Yoneda *et al.* (U.S. Patent No. 4,906,594) and Jones *et al.* (U.S. Patent No. 5,632,855). Applicant does not admit that either Tanizaki *et al.* or Manning *et al.* is prior art and reserves the right to "swear behind" Tanizaki *et al.* and Manning *et al.* as provided for under 37 C.F.R. 1.131. Applicant respectfully traverses the rejections of claims 30 and 31.

Claims 30 and 31 are dependent on claim 29. For reasons analogous to those stated above and elements in the claims, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claims 30 and 31. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 30 and 31.

Further, with respect to claim 31, the Office action in paragraph 6 states, "As to claim 31, the modified Tanizaki *et al.*'s figure 2 further shows a logic cell (106) coupled to the voltage node and close to the transistor." Applicant disagrees. The Office action does not cite to text in Tanizaki *et al.* that teaches or suggest the proximity of the logic cell to the transistor. So, applicant's representative assumes that the Office action is relying on the figure to teach the closeness of the logic cell to the transistor. Applicant submits that the figure is not drawn to scale and the proximity of the logic cell to the

transistor cannot be determined from the figure. Hence, the cited references fail to teach or suggest, either alone or in combination, each of the elements of claim 31. Thus, the Office action fails to state a *prima facie* case of obviousness with respect to claim 31. Therefore, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 31.

Claims 32-34

Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanizaki *et al.* in view of Manning *et al.* (U.S. Patent No. 5,962,887) in view of Abrokawah *et al.* (U.S. Patent No. 5,539,248). Applicant does not admit that either Tanizaki *et al.* or Manning *et al.* is prior art and reserves the right to "swear behind" Tanizaki *et al.* and Manning *et al.* as provided for under 37 C.F.R. 1.131. Applicant respectfully traverses the rejections of claims 32-34.

Claim 32 recites, "a gallium arsenide die." The Office action must provide specific, objective evidence of record for a finding of a teaching, suggestion, or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). The Office action does not meet this requirement because the Office action fails to address the question of a teaching, suggestion, or motivation, in the record (i.e., in the references) to combine a gallium arsenide die, as taught in Abrokawah *et al.* with the capacitor of Manning *et al.* and the circuit shown in Fig. 2 of Tanizaki *et al.* Applicant respectfully submits that there is no such teaching because neither Manning *et al.* nor Tanizaki *et al.* teach or suggest the use of gallium arsenide. Thus, by failing to meet the standard of *In re Sang Su Lee*, the Office action fails to state a *prima facie* case of obviousness with respect to claim 29. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 32.

Claim 33 is dependent on claim 32. For reasons analogous to those state above and elements in the claims, applicant respectfully submits that the Office action fails to

state a *prima facie* case of obviousness with respect to claim 33. Therefore, applicant requests withdrawal of the rejection and reconsideration of claim 33.

Claim 34 is dependent on claim 33. For reasons analogous to those stated above and elements in the claims, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claim 34. Further, as argued above with respect to claim 4, the cited references fail to teach or suggest, either alone or in combination, each of the elements of claim 34. Specifically, the references fail to teach or suggest, "a gate oxide layer having a thickness of between about 20 angstroms and about 40 angstroms," as recited in claim 34. Therefore, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 34.

Claims 35-37

Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanizaki *et al.* in view of Manning *et al.* (U.S. Patent No. 5,962,887) in view of McKee *et al.* (U.S. Patent No. 6,1432,072).). Applicant does not admit that Tanizaki *et al.* or Manning *et al.* or McKee *et al.* is prior art and reserves the right to "swear behind" Tanizaki *et al.* and Manning *et al.* as provided for under 37 C.F.R. 1.131. Applicant respectfully traverses the rejections of claims 35-37.

Claim 35 recites, "a germanium die." The Office action must provide specific, objective evidence of record for a finding of a teaching, suggestion, or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). The Office action does not meet this requirement because the Office action fails to address the question of a teaching, suggestion, or motivation, in the record (i.e., in the references) to combine a germanium die, as taught in McKee *et al.* with the capacitor of Manning *et al.* and the circuit shown in Fig. 2 of Tanizaki *et al.* Applicant respectfully submits that there is no such teaching because neither Manning *et al.* nor Tanizaki *et al.* teach or suggest the use of gallium arsenide. Thus, by failing to meet the standard of *In*

re Sang Su Lee, the Office action fails to state a *prima facie* case of obviousness with respect to claim 35. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 35.

Claims 36 and 37 are dependent on claim 35. For reasons analogous to those stated above and elements in the claims, applicant respectfully submits that the Office action fails to state a *prima facie* case of obviousness with respect to claims 36 and 37. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 36 and 37.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone applicant's attorney at 612-371-2109 to facilitate prosecution of the application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

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